

NEW COMBINATIONS IN THE GENUS *SENEGALIA*
(FABACEAE: MIMOSOIDEAE)

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ABSTRACT

Morphological and genetic differences separating the subgenera of *Acacia s.l.* and molecular evidence that the genus *Acacia s.l.* is polyphyletic necessitate transfer of the following taxa from *Acacia* subgenus *Aculeiferum* Vassal to *Senegalia*, resulting in 10 new combinations in the genus *Senegalia*: *S. grandisiliqua* (Benth.) Seigler & Ebinger, *S. guarensis* (L. Cárdenas & F. García) Seigler & Ebinger, *S. laeta* (R. Br. ex Benth.) Seigler & Ebinger, *S. lowei* (L. Rico) Seigler & Ebinger, *S. polyacantha* (Willd.) Seigler & Ebinger, *S. riograndensis* (Atahuachi & L. Rico) Seigler & Ebinger, and *S. skleroxyla* (Tussac) Seigler & Ebinger. Two new combination and new status changes are necessary: *S. latifoliola* (Kuntze) Seigler & Ebinger, **comb. et stat. nov.** and *S. rhytidocarpa* (L. Rico) Seigler & Ebinger, **comb. et stat. nov.** A lectotypification is made for *Acacia grandisiliqua* Benth. One new name was required: *S. stenocarpa* Seigler & Ebinger, **nom. nov.** *Phytologia* 91(1): 26-30, (April, 2009).

KEY WORDS: *Acacia sensu lato*, Fabaceae, Mimosoideae, *Senegalia*.

Morphological and genetic differences separating the subgenera of *Acacia s.l.* and molecular evidence that the genus *Acacia s.l.* is polyphyletic necessitate recognition of segregate genera and

transfer of many *Acacia* species to these genera. A large number of species of *Acacia* subgenus *Aculeiferum* Vassal must be referred to *Senegalia* Rafinesque.

Taxonomic Changes

For the following 10 taxa, this results in new combinations, changes in status and a new name in the genus *Senegalia*:

1. **SENEGALIA GRANDISILIQUA** (Benth.) Seigler & Ebinger, **comb. nov.** Basionym: *Acacia grandisiliqua* Benth. London J. Bot. 1: 518. 1842. Bentham equated this taxon with *Mimosa grandisiliqua* Vell., Fl. flumin. 11: (t. 37). 1790 [1831]. nom. nud. and made a nom. nov. based on the type specimens below. – TYPE: BRAZIL. BAHIA: C. F. P. von Martius 1098 [lectotype, designated here: K (photo F)]; [paratypes: Lushnath 145 (K, MO); C. F. P. von Martius 1104 (K?)].

2. **SENEGALIA GUARENSIS** (L. Cárdenas & F. García) Seigler & Ebinger, **comb. nov.** Basionym: *Acacia guarensis* L. Cárdenas & F. García, Ernstia 10: 146. 2000. – TYPE: VENEZUELA: Territorio Federal Amazonas. Cuenca del Río Manapiare, selva alta, a media hora de camino desde el poblado de Guara en dirección SE, en la pica hacia el Caño Garrafón, alt. 140 m, 5° 15' N, 66° 03' W, 28 Jan 1977, O. Huber 429/3435 (holotype: VEN 307571).

3. **SENEGALIA LAETA** (R. Br. ex Benth.) Seigler & Ebinger, **comb. nov.** Basionym: *Acacia laeta* R. Br. ex Benth., London J. Bot. 1: 508. 1842. – TYPE: ETHIOPIA: prope montes Tarnta, H. Salt 82 (holotype: BM; isotypes: MO, NY).

4. **SENEGALIA LATIFOLIOLA** (Kuntze) Seigler & Ebinger, **comb. et stat. nov.** Basionym: *Acacia riparia* Kunth var. *latifoliola* Kuntze, Revis. gen. pl. 3(2): 47. 1898. – TYPE: BRAZIL. MATO GROSSO: O. Kuntze s.n. (holotype: NY).\

5. **SENEGALIA LOWEI** (L. Rico) Seigler & Ebinger, **comb. nov.** Basionym: *Acacia lowei* L. Rico, Amer. Sp. *Acacia* 114. 2007. – TYPE: Probably from Brazil, but based on a specimen cultivated in Madeira; [lectotype, Rico-Arce (2007): original drawing for plate 3366 (M. Young, K-library)].

6. **SENEGALIA POLYACANTHA** (Willd.) Seigler & Ebinger, **comb. nov.** Basionym: *Acacia polyacantha* Willd., Sp. pl. 4: 1079. 1806. – TYPE: No type cited, habitat in India orientali, *Roxburgh s.n.* [holotype: B-Willd.; isotype: (fragment K)].

7. **SENEGALIA RHYTIDOCARPA** (L. Rico) Seigler & Ebinger **comb. et stat. nov.** Basionym: *Acacia polyphylla* DC. var. *rhytidocarpa* L. Rico, Anales Jard. Bot. Madrid 63: 28. fig. 1. 2006. – TYPE: BOLIVIA. BENI: Provincia Ballivian, km 35 carretera Yucumo-Rurrenabaque, Colegio Técnico Agropecuario, río Colorado, 67° 05' W, 14° 50' S, *D. N. Smith et al. 13586* (holotype: LPB; isotypes: G, K, MO).

8. **SENEGALIA RIOGRANDENSIS** (Atahuachi & L. Rico) Seigler & Ebinger, **comb. nov.** Basionym: *Acacia riograndensis* Atahuachi & L. Rico. Kew Bull. 62: 605. 2007. – TYPE: BOLIVIA. COCHABAMBA: Provincia Campero, Pasorapa, en la bajada de Buena Vista hacia el Río Grande, 27 Dec 2004, *J. R. I. Wood, M. Atahuachi & M. Mercado 21251* (holotype: BOLV; isotypes: K, LPB).

9. **SENEGALIA SKLEROXYLA** (Tussac) Seigler & Ebinger, **comb. nov.** Basionym: *Acacia skleroxylla* Tussac, Fl. Antill. 1: 146. (pl. 21). 1808 [1808-1813]. – TYPE: Antilles. Santo Domingo [holotype: pl. 21 from Tussac (1808); isotype: K (Rico-Arce 2007)].

10. **SENEGALIA STENOCARPA** Seigler & Ebinger, **nom. nov.**
Basionym: *Acacia stenocarpa* Malme, Ark. Bot. 23A(13): 46. 1931.
nom. illeg. non Richard (1847). – TYPE: BRAZIL. MATO GROSSO:
Corumbá, in silva satis clara regionis calcariae, 19 Dec 1902, *G. O. A.*
Malme 2731 [lectotype, Seigler et al. (2006): S] [paratype: *Malme*
2731a (S)].

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LITERATURE CITED

- Bentham, G. 1842. Notes on Mimoseae, with a synopsis of species, London Journal of Botany 1: 318-392. 494-528.
- Bentham, G. 1875. Revision of the suborder Mimoseae. Transactions of the Linnaean Society of London 30: 335-664.
- Colla, A. 1834. Herbarium Pedemontanum. 2: Torino. Ex Typis regiis. pp. 1-557.
- Richard, A. 1847 [1848]. Tentamen Florae Abyssinicae 1: Paris. 472 pp.
- Rico-Arce, L. 2007. American Species of *Acacia*. A Checklist and Synopsis of American species of *Acacia* (Leguminosae: Mimosoideae), CONABIO, Mexico City. 207 pp.

Seigler, D. S., J. E. Ebinger, and J. T. Miller. 2006. The genus *Senegalia* from the New World. *Phytologia* 87: 38-93.

Tussac, F. R. de. 1808. Flores des Antilles, ou Histoire Generale. Vol. 1. Apud Autorem et F. Schoell, Paris. 1-198 pp.